DOCUMENT RESUME

ED 236 291 UD 023 177

AUTHOR Morton-Watts, Gwendolyn
TITLE Resident Environmental Classroom. Disadvantaged Pupil Program Fund. Evaluation Report, 1982-83.
INSTITUTION Cleveland Public Schools, OH. Dept. of Research and Analysis.
PUB DATE Jul 83
NOTE 15p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Classroom Desegregation; *Compensatory Education; Cultural Exchange; Disadvantaged Youth; Elementary Secondary Education; Environmental Education; *Experiential Learning; Grade 6; Group Dynamics; Group Unity; High Schools; Junior High Schools; Leadership Training; *Outdoor Education; *Program Effectiveness; Program Evaluation; *Resident Camp Programs; Teamwork
IDENTIFIERS Cleveland Public Schools OH

ABSTRACT

This report provides an evaluation, for the school year 1982-83, of the Resident Environmental Classroom project for Chapter I classroom teachers and students in the Cleveland Public Schools. The project is designed to provide students with direct experience with the natural environment, exposure to experiential learning concepts, exposure to a variety of situations utilizing group unity/dynamics and teamwork, and opportunities to interact with students of different racial, ethnic, and geographic backgrounds. In 1982-83, 1,441 sixth grade students and 72 classroom teachers from Chapter I schools took part in the project. Three additional sessions provided leadership training for 42 junior and 66 senior high school student council members. The program objectives were attained: a 25 percent gain in student knowledge of environmental concepts; approval of 80 percent of the teachers concerning the project's educational value; and participation of racially-mixed groups of sixth grade students. (CMG)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED236291

RESIDENT ENVIRONMENTAL CLASSROOM
DISADVANTAGED PUPIL PROGRAM FUND

1982-1983
EVALUATION REPORT

Prepared by

Gwendolyn Morton-Watts
Program Evaluator

Typed by

Eleanor Haithcox

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

M. Fleming
Cleveland Public Schools

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CD 023 177

Cleveland Public Schools

RESEARCH AND ANALYSIS DEPARTMENT

July, 1983

RESIDENT ENVIRONMENTAL CLASSROOM

1982-1983 DPPF Evaluation

PURPOSE AND OVERVIEW

Students and classroom teachers from Chapter 1 schools spend two and one-half days at Camp Koinonia, Camp Koinonia is located 45 miles from downtown Cleveland. The camp/resident experience provides an environmental setting with the concept of developing a student population who would have:

- direct experience with the natural environment.
- multitudinois exposure to "experiential learning" concepts.
- an exposure to a variety of situations designed to provide for the development of group unity/dynamics and team work.
- opportunities to interact with students of different racial, ethnic and geographic background.

SERVICE SUMMARY

Pupils Served: 1,564 Grades Served: 6-12 Years in Operation: 17

Schools: 24 Staffing:

1	Program Coordinator, FT
1	Resident Director, PT
72	Teachers, PT
9	Educational Aides, PT
1	Clerk, FT
1	Nurse, PT

Total DPPF Expenditures: Per Pupil Cost:

SUMMARY OF FINDINGS

Sixth grade students and their teachers were in residence two or more days in a natural evironment. During their stay, students participated in learning experiences that extend the classroom and curriculum to the natural/constructed surroundings available at the resident setting.

Three additional sessions provided leadership training for 42 junior high and 66 senior high school students. Also, field studies were coordinated and conducted for 15 students (from the School of Science) at Camp Mueller.

All three objectives were attained.

OBJECTIVES AND OUTCOME

The Resident Environmental Classroom is designed to extend the curriculum to the outdoors for the purpose of learning. It provides a learning climate which offers opportunities for direct laboratory experiences in identifying and resolving real life problems. The teacher uses the natural/constructed setting to help teach art, mathematics, science, social studies, physical education, and communications by helping the students to understand relationships between these subjects, the environment, and mankind.

- Objective 1: Eighty percent of a random sample of 300 participants will demonstrate a 25% gain in knowledge of environment and nature exploration concepts and demonstrated by pre/post test using a locally developed citerion referenced test.

  - A locally constructed test was administered to participants prior to their attending Resident Environmental Classroom and approximately five days after students returned to their classroom. Three hundred and six students responded to 35 vocabulary, 12 social/personal interaction and 17 environmental attitude items.

    A t-test for repeated measures revealed a vocabulary pretest mean of 17.01 and a post-test mean of 18.43 with a difference of 1.42. The analysis of social/personnel interaction showed a pretest mean of 45.28 and a post test mean of 47.40 with a mean difference of 2.12. Environmental attitudes produced a pretest mean of 17.64 and a post test mean of 19.16 with a mean difference of 1.52. The t-test for repeated measures show all three subtests were statistically significant at .0001 level. Table 1, presents the comparison of subtest scores and t-test results.

TABLE 1

Average Pre and Post Scores and t-test Results
on the Resident Environmental Test
at Grade 6

RE Subtest	N	Pre Test Raw Score	Post Test Raw Score	Mean Change	t
Vocabulary	306	17.01	18.43	1.42	.0001
Social-personal Interaction	306	45.28	47.40	2.12	.0001
Environmental Attitudes	306	17.64	19.16	1.52	.0001

(See Appendix B, Resident Environmental Test)

. Objective 2: Sixth Grade students from eligible Chapter 1 schools will be invited to participate by rank order, in racially mixed groups during each of 22 sessions of camp.

Two sessions (three days each will be scheduled) to include eligible Chapter 1 junior and senior high schools. Identified student leaders will attend camp, in racially mixed groups, during each of the two camp sessions.

. Outcome: Objective 2 was attained.

. Examination of project records revealed 1,441 students and 72 classroom teachers from Chapter 1 schools, participated in 20 sessions of resident environmental classroom activities at Camp Kononia. Three sessions of leadership training for 42 junior and 66 senior high school student council members were conducted. Therefore, twenty-three sessions with 1,564 students and 72 classroom teachers took part in the resident environmental classroom experience.

. Objective 3: Eighty percent of teachers of participating students will rate the educational value of the resident environmental classroom at least 3 on a five point scale.

. Outcome: Objective 3 was attained.

All 39 classroom teachers responding to a Teacher Questionnaire rated that the resident environmental classroom was an effective educational experience (a mean rating of five was attained on a five point scale). (See Appendix C, Teacher Questionnaire Summary.)

. A review of classroom teachers written comments revealed:

. students showed a marked difference in subsequent behavior and attitude toward the classroom teacher, other adults and each other.

. classroom teachers were provided an opportunity to observe students working together applying learned concepts to solve problems.

- urban students need the opportunity to appreciate a rural environment and practice skills such as using a compass, and reading maps in a positive manner.

- very positive reactions/feelings toward the resident environmental experience for classroom teacher and students.

ADDITIONAL FINDINGS

Documentation of project revealed service provided to 15 students attending the Cleveland School of Science. These eleventh grade students formed a Field Study Group. The group met once a week. In collabotation with this project, the students and their sponsor made four site visits to study the physical condition of the pond at Camp Mueller. (The pond is located on a site within the Cuyahoga Valley National Recreation Area.) Students presented written papers of group and independent study. The students concluded the "on site" experience was as an invaluable learning opportunity and recommended the continuation of the Field Study approach.

CONCLUSIONS The resident environmental experience provided an opportunity for the integration and adaptation of curriculum concepts and methods with the natural/constructed setting. Concepts of listening, communication skills, math, social studies, science, physical education were utilized to provide students hand-on experience.

The resident environmental setting provided for group and individual involvement. The shared experiences increased student's understanding of cooperation, trust, authority, and multicultural difference/similarities.

All three objectives were attained. Observations, on-site visits and staff interviews disclosed a staff involved in the principals practices of outdoor/environmental education. The neutral site provided the atmosphere to develop multicultural understanding and leadership training (group away from peer pressures).

Based on observations and conferences with the project staff the following recommendations are made.

- Review of the locally constructed test items for knowledge and attitude to refine the pre/post tests.

- Provide an opportunity for a Resident Environmental Classroom staff member for introductory activities prior to students on-site experience at the student's home school site.

APPENDIX A

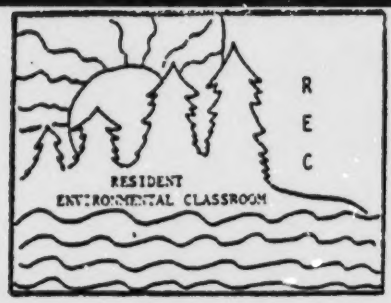
Resident Environmental Classroom
Schools Served*-DPPF

1982-1983 School Year

1. Anthony Wayne
2. Buhrer
3. Charles H. Lake
4. Chesterfield
5. Daniel E. Morgan
6. East Madison
7. Fullerton
8. George W. Carver
9. Halle
10. Henry W. Longfellow
11. Kenneth W. Clement
12. Kentucky
13. Margaret Ireland
14. Mary B. Martin
15. Miles Park
16. Oliver H. Perry
17. Orchard
18. Stephen E. Howe
19. Tremont
20. Union
21. Walton
22. Warner
23. Watterson-Lake
24. Willow

*Service was provided for:

- City-wide Senior High School Leadership Training Porgram
- City-wide Junior High School Leadership Training Program
- Cleveland School of Science - Field Study Program
- John Hay Senior High School Leadership Training Program



VOCABULARY
PRE/POST TEST

Name _____ Date _____

School _____ Teacher _____

Directions:

This test will show how well you know the meaning of words.

Each item has a phrase with an underlined word in it and four answer choices. All four answer choices might fit in the phrase, but only one answer choice means the same, or about the same, as the underlined word.

Look at the underlined word. Then read the words below it. Choose the word that means the same, or about the same, as the underlined word. Circle the letter of the answer you choose.

Sample Item:

Do Sample Item A below and mark your answer on your answer sheet.

A <u>terrible</u> fright

a. delight
b. jump
c. noise
d. scare

1. adaptation to surroundings
   a. adjustment
   b. confinement
   c. reward
   d. growth

2. hold an auction
   a. carnival
   b. grudge
   c. fair
   d. sale

3. the group classification
   a. discussion
   b. arrangement
   c. assumption
   d. planning

4. read the compass
   a. map key
   b. sign
   c. direction guide
   d. design

5. binding contract
   a. event
   b. agreement
   c. goal
   d. design

6. friendly cooperation
   a. plan
   b. working partnership
   c. conference
   d. argument

7. wood decay
   a. texture
   b. method
   c. color
   d. rot

8. new discovery
   a. find
   b. attraction
   c. habit
   d. obligation

9. study the ecology
   a. litter
   b. land
   c. habits
   d. enviornment

10. natural environment
    a. habits
    b. surrounding
    c. circle
    d. heredity

11. erosion of the earth
    a. surrounding cover
    b. eating away
    c. changing
    d. adding to

12. scientific evidence
    a. proof
    b. study
    c. method
    d. event

13. examine the tree
    a. taste
    b. understand
    c. avoid
    d. inspect

14. ford the river
    a. ride
    b. locate
    c. cross
    d. measure

15. fossil of a plant
    a. height
    b. remains
    c. leaf
    d. color

16. a terrible fright
    a. delight
    b. jump
    c. noise
    d. scare

17. camp gear
    a. work
    b. equipment
    c. procedures
    d. regulations

18. gravelled road
    a. long-lasting
    b. winding
    c. crushed stone
    d. newly paved

19. the animal's habitat
    a. dinner
    b. silence
    c. home
    d. condition

20. a hazardous trip
    a. risky
    b. unusual
    c. happy
    d. solitary

21. to isolate
    a. separate
    b. operate
    c. inspect
    d. imitate

22. my own journal
    a. journey
    b. suitcase
    c. diary
    d. trip

23. watch for landmarks
    a. colors
    b. written directions
    c. reference points
    d. road signs

24. map legend
    a. size
    b. routes
    c. symbols
    d. key

25. a magnifying glass
    a. enlarging
    b. reflecting
    c. shining
    d. rotating

26. learn by observation
    a. watching
    b. listening
    c. thinking
    d. waiting

27. twenty paces away
    a. leaps
    b. yards
    c. kilometers
    d. steps

28. air pollution
    a. color
    b. appearance
    c. production
    d. uncleanness

29. in rural areas
    a. industrial
    b. urban
    c. country
    d. mountainous

30. the shallow part of a stream
    a. deep
    b. not deep
    c. fast moving
    d. still

31. find the similarities
    a. measurements
    b. likenesses
    c. differences
    d. strangeness

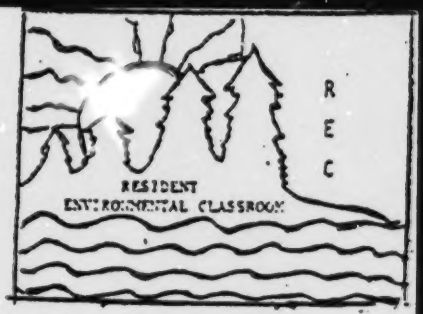
32. a solitary job
    a. desirable
    b. secure
    c. military
    d. lonely

33. stagnant water
    a. frigid
    b. not running
    c. long-lasting
    d. fast moving

34. rough and rocky terrain
    a. locomotive
    b. land
    c. roads
    d. riverbed

35. a treacherous place
    a. beautiful
    b. trustworthy
    c. dangerous
    d. hidden

36. a vertical position
    a. reclining
    b. sideways
    c. strained
    d. upright



ADAPTATION OF CURRICULUM, INSTRUCTIONAL METHODS AND MATERIALS: THROUGH SCHOOL CAMP AND ENVIRONMENTAL EDUCATION

STUDENT QUESTIONNAIRE

TO THE STUDENT: The purpose of this questionnaire is to find out how you think and feel about your environment and the children you spent the four days with at camp. This is not a test.

PRE/POST PART II

DIRECTIONS:
1. Read each statement carefully.
2. Each statement is followed by three blank spaces. By blackening in one of these spaces you can show how much you agree or disagree with each statement.

A = Agree B = Undecided C = Disagree

Examples:

A. I like spinach A B C

Blacken the space that tells how you feel about spinach. If you like it very much, blacken in the (A = Agree). If you dislike spinach very much, blacken the space under C (C = Disagree).

B. I do not like to roller skate.

A B C

Blacken the space that tells how you feel about roller skating. If you do like to roller skate very much, you would blacken the space under C (C = Disagree), because the statement is false for you.

C. I like gym class. A B C

Maybe you do not care one way or the other about gym class. In this case you would blacken the space under B (B = Undecided), because you don't know how you feel about gym class.

RECORD ANSWERS ON AN ALL PURPOSE ANSWER SHEET

PART II

A = Agree
B = Undecided
C = Disagree

		A	B	C
37.	At camp I learned to work with students of other races.			
38.	It is best not to offer help to campers whose race is different than mine.			
39.	During the week at camp, I willingly shared something of mine with a person of a different race.			
40.	I think it is best not to accept help offered by a camper of a different race.			
41.	The color of a person's skin has nothing to do with their ability to be a "good Resident Environmental Camper".			
42.	Working and living with a person of a different race for a week at The Resident Environmnental Classroom helped me understand that person better.			
43.	If I could choose my cabin mate, I would choose a person whose race is the same as mine.			
44.	Experience such as the Trust (Blind) Walk, the Trust Fall and Harriet Tubman taught me to depend on all members of my group.			
45.	Resident Environmental Classroom helped me value myself as a person of worth.			
46.	The Resident Environmental Classroom helped me become more aware of myself, my emotions and my abilities.			
47.	The Resident Environmental Classroom helped me to be more willing to take and be a more responsible person.			
48.	The Resident Environmental Classroom helped me accept others regardless of their race, weaknesses and feelings.			

PART II

DIRECTIONS:
1. Read each statement carefully.
2. Each statement is either TRUE or FALSE.
3. If you think the statement is TRUE, darken Circle A.
   If you think the statement is FALSE, darken Circle B.

	A	B
49. All living things have a home.		
50. All living things can adjust to their environment.		
51. Dirty water is a problem all over the world.		
52. Living things do not need each other.		
53. Adapt is another word for adjust.		
54. The sun is a source of energy.		
55. Environment means all things that surround you.		
56. The air is cleaner and better for you in the city than it is in the country.		
57. All living things need water.		
58. Erosion is the wearing away of rocks and soil.		
59. "City smells" are no different than "country smells".		
60 My neighborhood environment is different than my camp environment.		
61. If you live in the city, you don't have to worry about the care of the soil.		
62. Because of my experiences with Research Environmental Classroom, I want to learn more about the environment.		
63. I can think of at least one environmental problem that I learned about at camp that I would like to know more about.		
64. Spiders are helpful to humans.		
65. It is OK to drop candy wrappers on the ground, either at camp or at home.		
66. I enjoyed most of the activities which helped me learn about my environment.		

PART II

	A	B
67. Is it alright to carve your initials on a tree?		
68. When taking a short cut home from school, it's alright to walk across a lawn instead of on the sidewalk.		
69. I think that nature hikes are boring.		
70. My city environment should be treated with as much respect as a country environment.		
71. Dropping my pop cans on the sidewalk will make my environment more attractive.		
72. Ecology is the study of the way plants and animals relate to each other and to their environment.		
73. Food come from stores.		
74. Plants do not need a garden to grow.		
75. Humans could not stay alive if there were no plants and animals.		

RESIDENT ENVIRONMENTAL CLASSROOM
CLEVELAND PUBLIC SCHOOLS

TEACHER QUESTIONNAIRE SUMMARY
1982-83

Percentage of Teacher Responses
In Each Rating Category

(N=39)

DIRECTIONS: Rate the degree to which you agree with the five statements below, on a five point rating scale, using the following rating system:

5	4	3	2	1
strongly agree		somewhat		strongly disagree

Mark or circle the one value indicating your degree of agreement.

Statement	Rating				
	5	4	3	2	1
The Resident Environmental Classroom Project allowed students to have direct experience with the natural environment.	100%	-	-	-	1
This project provided unique opportunities for pupils of different racial, ethnic, and geographical backgrounds to interact with one another.	97%	3%	-	-	-
This project exposed pupils or students to environmental concepts and practical living experience in a structured resident environment.	100%	-	-	-	-
This project created a variety of situations that helped teamwork and tolerance among pupils or students representing diverse backgrounds.	89%	8%	3%	-	-
The Resident Environmental Classroom is an effective educational experience in general.	100%	-	-	-	-